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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,339	12/19/2005	Kevin T. Hogan	00914-03	5928
34444 7590 07/24/2007 UNIVERSITY OF VIRGINIA PATENT FOUNDATION 250 WEST MAIN STREET, SUITE 300 CHARLOTTESVILLE, VA 22902			EXAMINER DAVIS, MINH TAM B	
			ART UNIT 1642	PAPER NUMBER
			MAIL DATE 07/24/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/561,339	Applicant(s) HOGAN ET AL.	
	Examiner MINH-TAM DAVIS	Art Unit 1642	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

**Group 1**, claim(s) 1-7, 23-25, 27, drawn to the polypeptide SEQ ID NO:6, a fragment thereof, and a method for detecting cancer, by detecting SEQ ID NO:6.

**Groups 2-9**, claim(s) 1-7, drawn to the polypeptide SEQ ID NO: 7-11, 22-24, and a fragment thereof. Each polypeptide constitutes a single, distinct invention.

**Groups 10-18**, claims 8-12, drawn to an antibody to the polypeptide SEQ ID NO: 6-11, 22-24. An antibody to each polypeptide constitutes a single, distinct invention.

**Groups 19-23**, claims 13-15, drawn to a nucleic acid SEQ ID NO:1-5. Each nucleic acid constitutes a single, distinct invention.

**Group 24**, claims 18-19, drawn to a method for inducing CTL, using the peptide SEQ ID NO:12,

**Group 25**, claims 20-21, drawn to a method for treating cancer, using CTLs specific for SEQ ID NO:12.

**Groups 26-34**, claim 22, drawn to the immunogen SEQ ID NO: 13-21. Each immunogen constitutes a single, distinct invention.

**Groups 35-39**, claims 23-26, drawn to a method for detecting cancer, using the nucleic acid SEQ ID NO:1-5. A method using each nucleic acid constitutes a single, distinct invention.

**Groups 40-47**, claims 23-25, 27, drawn to a method for detecting cancer, by detecting SEQ ID NO: 7-11, 22-24. A method detecting each polypeptide constitutes a single, distinct invention.

**Group 48**, claims 16-17, 28-30, drawn to a host cell, or an antigen presenting cell, expressing the polypeptide SEQ ID NO:6.

**Groups 49-56**, claims 16-17, 28-30, drawn to a host cell, or an antigen presenting cell, expressing the polypeptide SEQ ID NO: 7-11, 22-24. A host cell expressing each polypeptide constitutes a single, distinct invention.

The inventions are distinct, each from the other because of the following reasons:

A national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. When claims to different categories are present in the application, the claims will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (1) A product and a process specially adapted for the manufacture of said product; or (2) A product and a process of use of said product; or (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or (4) A process and an apparatus or means specifically designed for carrying out the said process; or (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process. If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application will be considered as

the main invention in the claims, see PCT article 17(3) (a) and 1.476 (c), 37 C.F.R. 1.475(b) and (d). Group I will be the main invention. After that, all other products and methods will be broken out as separate groups (see 37 CFR 1.475(d).)

Group I, claims 1-7, 23-25, 27, forms a single general inventive concept.

Groups 2-23, 26-34, 48-56 do not share the same technical feature of group I, because the polypeptides SEQ ID NOs: 7-11, 22-24, the immunogens SEQ ID NO:13-21, the antibodies, the nucleic acids SEQ ID NO:1-5, and the host cells of groups 2-23, 26-34, 48-56 do not share a common structure or property with the polypeptide SEQ ID NO:6 of group I.

Groups 35-47 do not share the same technical feature of group I, because the methods of groups 35-47 do not use the polypeptide SEQ ID NO:6 of group I.

The polypeptides SEQ ID NOs: 7-11, 22-24, the immunogens SEQ ID NO:13-21, the antibodies, the nucleic acids SEQ ID NO:1-5, and the host cells of groups 2-23, 26-34, 48-56 are not linked to each other, because they do not share a common structure.

Accordingly, Groups 1-56 are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by

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a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-TAM DAVIS whose telephone number is 571-272-0830. The examiner can normally be reached on 9:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SHANON FOLEY can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MINH TAM DAVIS  
July 18, 2007

/Larry R. Helms/  
Supervisory Patent Examiner